

## IS MY WATER SAFE?

The City of Adrian Utilities Department is once again proud to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA).

Federal regulation passed as part of the 1996 Safe Drinking Water Act Amendments, require that all community water systems provide their customers with an annual report.

This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report details testing completed during the 2018 calendar year.

We are pleased to inform you that your drinking water surpassed every Federal and State requirement in 2018.

We encourage you to share your thoughts with us on the information contained in this report. Should you ever have any questions, we are always available to assist you. We are committed to providing you with information because informed customers are our best allies.

### City of Adrian

Nathan Burd, City Administrator  
Will Sadler, Utilities Director  
Tim Ritchie, Water Plant Superintendent

### City Commission

Chuck Jacobson, Mayor  
Lad Strayer, Commissioner  
John Dudas, Commissioner  
Mary Roberts, Commissioner  
Allen Heldt, Commissioner  
Brad Watson, Commissioner  
Kirk Valentine, Commissioner

### For more information please contact:

#### Water Plant Superintendent

Tim Ritchie

815 Bent Oak Avenue

Adrian, MI 49221

Email: [tritchie@adrianmi.gov](mailto:tritchie@adrianmi.gov)

Website: [adriancity.gov](http://adriancity.gov)

(517) 264-4828

#### For Emergency Situations Call

(517) 264-4820

Spanish (Espanol)

Este informe contiene informacion

Muy importantesobre la calidad de su

Aqua potable. Por favor lea este in-forme

O comuniqu con alguien que

Puada traducen la informacion.

### STAY CONNECTED!

Visit our website at  
[www.adriancity.com](http://www.adriancity.com) & follow us on  
Facebook, Twitter & Instagram



# CITY OF ADRIAN WATER QUALITY REPORT

ANNUAL WATER TESTING  
PERFORMED IN 2018





## WHERE DOES MY WATER COME FROM?

The City of Adrian uses a blend of surface water from Lake Adrian and ground water from the Westside Well Field as its main sources of drinking water.

Wolf Creek is fed by a 65-square-mile watershed. Lake Adrian covers 86 acres and contains up to 300 million gallons of water. The City also has a ground water supply from the Westside Well Field. The well supply is blended with the surface water to improve our source water quality.

The City of Adrian Water Plant was constructed in 1944 and provides roughly 1.5 billion gallons of clean drinking water every year. The plant is staffed 24 hours a day, seven days a week by a dedicated crew that is committed to their profession.

## DESCRIPTION OF WATER TREATMENT PROCESS

Your water is treated in a “treatment train” (a series of processes applied in a sequence) that includes coagulation, flocculation, sedimentation, filtration, and disinfection. Coagulation removes dirt and other particles suspended in the source water by adding chemicals (coagulants) to form tiny sticky particles called “floc,” which attract the dirt particles. Flocculation (the formation of larger flocs from smaller flocs) is achieved using gentle, constant mixing. The heavy particles settle naturally out of the water in a sedimentation basin. The clear water then moves to the filtration process where the water passes through sand, gravel, charcoal or other filters that remove even smaller particles. A small amount of chlorine or other disinfection method is used to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water before water is stored and distributed to homes and businesses in the community.

## SOURCE WATER PROTECTION TIPS

Protection of drinking water is everyone’s responsibility. You can help protect your community’s drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA’s Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network’s How to Start a Watershed Team.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people “Dump No Waste - Drains to River” or “Protect Your Water.” Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

## SOURCE WATER ASSESSMENT & ITS AVAILABILITY

The Michigan Department of Environmental Quality has performed an assessment of our source water to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a six-tiered scale from “very low” to “high”, based primarily on geologic sensitivity, water chemistry and contamination sources. The susceptibility of our source has been rated as “high”.

Significant sources of contamination include listed potential contamination sources, plus urban and agricultural runoff from the River Raisin watershed above Adrian. We are making efforts to protect our source water by controlling access, performing routine sample analysis and making frequent patrols on and around the watershed. If you would like to know more about this report, please contact Tim Ritchie at (517) 264-4828. To report any suspicious activity around Lake Adrian or at any of our elevated tanks, please call the local police or the number above.

## HOW CAN I GET INVOLVED?

The Adrian City Commission meets at 7 p.m. on the first and third Mondays of each month. Meetings are held at the City Commission Chambers at 159 E. Maumee Street. Please come and participate and voice any concerns you may have about your drinking water.

For further information, visit the City of Adrian’s website at [www.adriancity.com](http://www.adriancity.com)



# WATER QUALITY DATA TABLE

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

ANALYTES	MCLG or [MRDLG]	MCL,TT, or [MRDL]	YOUR WATER	RANGE LOW	HIGH	SAMPLE DATE	VIOLATION	TYPICAL SOURCE
Disinfectants & Disinfectant By-Products (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl2) (ppm)	4	4	2.7	1.4	2.7	2018	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	17	4.8	17	2018	No	By-product of drinking water chlorination
TTHMs (Total Trihalomethanes) (ppb)	NA	80	48	27	51	2018	No	By-product of drinking water disinfection
Inorganic Contaminants								
Barium (ppm)	2	2	0.16	NA	NA	2018	No	Discharge of drilling wastes & refineries; Erosion of natural deposits
Cadmium (ppb)	5	5	0.49	NA	NA	2018	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints
Chromium (ppb)	100	100	1.7	NA	NA	2018	No	Discharge from steel & pulp mills; Erosion of natural deposits
Fluoride (ppm)	4	4	1.01	0.35	1.01	2018	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen) (ppm)	10	10	0.47	0	0.47	2018	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (measured as Nitrogen) ppm	1	1	1.0	0	1.0	2018	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	50	50	1.4	NA	NA	2018	No	Discharge from petroleum & metal refineries; Erosion of natural deposits; discharge from mines
Microbiological Contaminants								
Turbidity (NTU)	NA	0.3	100%	NA	NA	2018	No	Soil runoff
100 % of samples were below the TT value of 0.3 A value less than 95% constitutes a TT violation. The highest single measurement was 0.09. Any measurements in excess of 1.0 is a violation unless otherwise approved by the state.								
Radiological Contaminants								
Alpha emitters pCi/L	0	15	0.84	NA	NA	2018	No	Erosion of natural deposits
Beta/photon emitters pCi/L	0	50	1.9	NA	NA	2018	No	Decay of natural material & man-made deposits
Synthetic Organic Contaminants (including pesticides & herbicides)								
Dalapon ppb	200	200	0.28	NA	NA	2018	No	Soil runoff

ANALYTES	MCLG	AL	YOUR WATER	SAMPLE DATE	# SAMPLES EXCEEDING AL	EXCEEDS AL	TYPICAL SOURCE
Inorganic Contaminants							
Lead - action level at consumer taps (ppb)	0	15	0*	2017	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper - action level at consumer taps (ppm)	1.3	1.3	0.016*	2017	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

\*90 percent of the samples collected were at or below the level reported for our water.

## Unit Descriptions

**ppm**- parts per million, or milligrams per liter (mg/L)  
**ppb**- parts per billion, or micrograms per liter (µg/L)  
**NTU**- Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.  
**NA**- not applicable  
**ND**- not detected  
**NR**- monitoring not required, but recommended

## Important drinking water definitions

**MCLG**- Maximum Contaminant Level Goal-The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.  
**MCL**- Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.  
**TT**- Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

**AL**- Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.  
**Variances and Exemptions**- State or EPA permission not to meet an MCL or a treatment technique under certain conditions.  
**MRDLG**- Maximum residual disinfection level goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants

**MRDL**- Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.  
**MNR**- Monitored Not Regulated  
**MPL**- State Assigned Maximum Permissible Level



## ADDITIONAL INFORMATION FOR LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Adrian Water Treatment Plant is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

## ADDITIONAL INFORMATION FOR ARSENIC

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

## DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

## WHY ARE THERE CONTAMINANTS IN MY DRINKING WATER?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity:

MICROBIAL CONTAMINANTS,  
such as viruses and bacteria, that may come from  
sewage treatment plants, septic systems, agricultural  
livestock operations, and wildlife;

INORGANIC CONTAMINANTS,  
such as salts and metals, which can be naturally occur-  
ring or result from urban stormwater runoff, indus-  
trial, or domestic wastewater discharges, oil and gas  
production, mining, or farming;

and RADIOACTIVE CONTAMINANTS,

can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

PESTICIDES AND HERBICIDES,  
which may come from a variety of sources such as ag-  
riculture, urban stormwater runoff, & residential uses;

ORGANIC CHEMICAL CONTAMINANTS,  
including synthetic and volatile organic chemicals,  
which are by-products of industrial processes and  
petroleum production, and can also come from gas  
stations, urban stormwater runoff, and septic systems;

## RESULTS OF CRYPTOSPORIDIUM MONITORING

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

## RESULTS OF VOLUNTARY MONITORING

Microcystins were monitored and were not detected in the surface water supply. These toxins are produced by many types of cyanobacteria (blue-green algae), including Microcystis, Anabaena, Oscillatoria, Nostoc, Anabaenopsis, and terrestrial Hapalosiphon. Nodularins are produced by the genus Nodularia and they are found in marine and brackish water. Acute poisoning of humans and animals constitutes the most obvious problem from toxic cyanobacterial blooms, and in several cases has led to death. Human and animal exposure to these toxins occurs most frequently through the ingestion of water, through drinking or during recreational activities in which water is swallowed.